

Positive and Negative Attributes of Gypchek	
Positive	Negative
No effect on beneficial forms of life	Relatively slow acting (10 to 14 days)
Natural component of gypsy moth ecosystem	Considerable care must be used in timing and application
Selective against gypsy moth	Short residual activity (less than 5 days)
Affords population reduction and foliage protection	Is presently more expensive than conventional insecticides
Insects do not develop resistance	Quantities are limited
Suited to a pest management system	
Ecologically and environmentally acceptable	

creasing gypsy moth populations on the George Washington National Forest west of Woodstock, VA. Twelve plots, each 30 to 50 acres in size, were laid out; a grid was established to delineate a 20-acre core plot in the center of each 30- to 50-acre plot. A fixed-radius, 1/40-acre subplot was established at each of the 20 grid points. There are six replicates of each of two treatments: **Gypchek-Orzan LS** and control. Egg mass counts, defoliation estimates and NPV larval mortality estimates will be conducted within each subplot.

Gypchek was applied at a dose of 5 x 10" Polyhedral Inclusion Bodies (PIB)/acre in two gallons of finished spray per acre. Two applications were applied using an Ag-Cat equipped with 8 micronair AU-5000 atomizers; the first application was made on May 8, and a second application was made on May 11. Cooperators involved with this project include the U.S.D.A. Northeastern Forest Experiment Station and the National Gypsy Moth Management Group.

#2) **Luretape** — Experimental work with disparlure (the natural chemical attractant female moths use to attract males) has identified several controlled release formulations that were

highly effective in disrupting pheromone communication and mating success of female gypsy moths in low density populations. However, acceptance of mating disruption as a practical pest management tool is dependent, in part, on demonstrating a population reduction or a dampening of population increase. Ground tests of **Luretape** conducted within the Maryland IPM Pilot Project in 1985, 1986 and 1987 resulted in fewer male moths captured in pheromone traps and a lower incidence of mating of tethered females when compared to control plots.

In the **Luretape** field test sponsored by the **AIPM** Project in 1988, the ground application of a plastic laminate formulation of racemic disparlure (**Hercon Luretape**) will be evaluated in low density gypsy moth populations (less than 20 egg masses/acre) on the George Washington National Forest near Wardensville, West Virginia. Ten plots, each 4 hectares (approximately 10 acres) in size, were established. There are five replicates of two treatments: racemic disparlure applied at a dosage rate of 750 g active ingredient (AI)/day and a control. **Luretape** will be applied by attaching 25 cm of laminated tape to trees on a 5-meter grid. Pre-

and post-treatment egg mass counts will be determined using 50 fixed-radius, 0.01-ha subplots in the center hectare (approximately 2.47 acres) of each plot. Mating disruption will be evaluated by the use of virgin female moths placed at two vertical strata within the center of each plot, replaced on a 2-day schedule for the duration of the test, and then returned to the laboratory along with any deposited eggs. Eggs will be incubated at room temperature for six weeks and examined under a dissecting microscope for embryonation. Milk carton pheromone traps placed within each subplot will also be used to evaluate the level of disorientation of mating communication (i.e. comparisons will be made of male moth captures between traps located within pheromone and traps located at control plots). Samples of **Luretape** will be taken on a biweekly basis throughout the summer and on a bimonthly basis throughout the fall and winter months and analyzed for residual content. Cooperators involved with this effort include Environmental Resource Associates, the U.S.D.A. Agricultural Research Service, and the U.S.D.A. Animal and Plant Health Inspection Service.

—**Richard C. Reardon**
AIPM Project Leader

For Further information
This monthly newsletter reports on the progress and results of the **AIPM** Project. If you would like to contribute to this newsletter or be added to the mailing list, contact Sandy Fosbroke (Editor) at the address below. For more information about the **AIPM** Project, please contact Richard Reardon (Project Leader) at:
U.S.D.A Forest Service
180 Canfield Street
Morgantown, WV 26505
(304) 291-4891



Appalachian Gypsy Moth IPM DEMONSTRATION PROJECT NEWS

VOLUME 1, ISSUE 2, JUNE 1988

AIPM UPDATE
The first field season of the **AIPM** Project is now underway and a list of accomplishments and future plans is in order. The Project has made great progress in its first year. Through the joint efforts of all of you, these major milestones have been achieved:
*Organizational structures and working arrangements between the cooperators were established and most permanent hiring has taken place.
*An interdisciplinary team has begun the process of developing an environmental impact statement (EIS). A Notice of Intent was published in the Federal Register, over 3,000 scoping letters were sent out, and an EIS draft for comment will be prepared by October of this year with the final EIS due in February of 1989.
*Egg mass and defoliation survey data collected in 1987 indicated that no treatments would be needed in the Project area this year.
*Procedures for the establishment of the grid monitoring network have been developed.
*A public information program has begun. The Extension and Information Dissemination Team held its first meeting Thursday, May 26, 1988 to discuss informational needs of the **AIPM** Project; future plans include the addition of a Public Affairs Specialist to help coordinate informational efforts among all **AIPM** Project personnel and the public.
*Study plans have been developed, plots located, and contracts

finalized for the gypsy moth intervention/methods improvement evaluations (**Gypchek**, **Bt**, **Luretape**, and **Dimilin** persistence) that will take place this year.
*Contracts have been awarded for production of **Gypchek** and sterile egg masses for use in 1989 or beyond.
*A data management system is in development and is nearly complete. The Gypsy Moth Management Group, chaired by Bill Ravlin at Virginia Polytechnic Institute & State University, is heading up this effort.
It has already been a rather full year, but additional activities will take place soon, including the acquisition of aerial photography and satellite imagery for most of the Project area under the supervision of Robert Acciavatti (U.S. Forest Service, Morgantown, WV).
The Project is off to a great start. The all-important planning phase is nearly behind us and we can look forward to several years of concentrated effort that will show that we can indeed slow the spread of the gypsy moth and reduce its impacts in areas where it is present. Where necessary, suggested techniques will be evaluated to determine the best and most appropriate way to apply them; as this new technology becomes available, it will be incorporated into our plans and used to help us meet our objectives. This is an exciting project that offers us the unique opportunity to finally bring all of our knowledge to bear and to switch



Allan Bullard, Acting Program Manager
to a proactive rather than a reactive role in dealing with this pest. In my job as Acting Program Manager, I look forward to meeting all of you and working with you to implement what we have all spent so long planning.
—**Allan Bullard**
AIPM Acting Program Manager

GYPSY MOTH COOPERATIVE SUPPRESSION AND THE AIPM PROJECT IN WEST VIRGINIA
Gypsy moth cooperative suppression in West Virginia is ongoing in seven counties, including Jefferson, Berkeley, Morgan, Hampshire, Mineral, Grant and Hardy (see figure 1). The leading edge of gypsy moth infestation in West Virginia includes the southern sections of the latter two counties as well as northern Pendleton, Tucker, northeastern Barbour, Preston and eastern Monongalia Counties. The **AIPM** Project area in West Virginia in-